



著作目録(山本義一)

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92



山 本 義 一 教 授 略 歴

(明治42年7月4日 石川県生)

昭和8年3月 東北帝国大学理学部物理学科卒業
昭和8年4月 中央气象台に勤務
昭和17年1月 中央航空気象研究所研究官に任せられる
昭和21年3月 東北帝国大学理学部教授に着任し現在に至る

昭和40年12月～昭和44年4月 理学部長
昭和43年5月～昭和47年7月 日本気象学会理事長
昭和43年11月～昭和46年11月 日本学術会議会員
昭和46年7月～昭和48年3月 大型計算機センター長
等を兼務し、又専門の大気放射学の研究により、
昭和36年 米国気象庁賞
昭和40年 日本気象学会藤原賞
昭和45年 日本学士院賞
を授与さる。

著 作 目 録

発表年	著作・論文題目（共著者）	掲 載 誌 名	巻 頁
I 論 文			
1936	The measurement of the Amount of Dew at Hukuoka, Japan	Geophysical Magazine	Vol. X, 265-268
1936	蒸発の理論	気 象 集 誌	第14巻, 420-424
1937	On the Rate of Condensation of Dew	Geophysical Magazine	Vol. XI, 91- 96
1937	乾湿計の公式に関する研究	気 象 集 誌	第15巻, 411-421
1938	土壌面よりの蒸発に関する実験	気 象 集 誌	第16巻, 97-107
1941	大気乱流による熱輸送の機巧について	気 象 集 誌	第19巻, 450-454
1947	Method for Measuring Air Temperature on a High Speed Airplane, (coauthor K. Terada)	J. of Meteorology	Vol. 4
1948	Effect of Wind Velocity on Psychrometer Constant, (coauthor A. Yamamoto)	Geophysical Magazine	Vol.15
1948	自由大気の乱れに就いて （共著 塩谷正雄）	気 象 集 誌	第26巻, 149-156
1948	微小気圧測定装置 （共著 塩谷正雄, 津沢正己）	気 象 集 誌	第26巻, 190-193
1948	Turbulence in the Free Atmosphere (1st Report), (coauthor M. Shiotani)	Geophys. Mag.	Vol. 20
1949	Turbulence in the Free Atmosphere (2nd Report), (coauthor M. Shiotani)	Geophys. Mag.	Vol. 20
1949	The Total Solar Radiation during the Annular Eclipse on May 9, 1948, (coauthors S. Yamamoto and B. Sato)	Sci. Rep. Tohoku Univ., Ser. 5	Vol. 1, 1- 5
1949	Absorption Coefficient of Water Vapour in the Far Infra-red Region, (coauthor G. Onishi)	Sci. Rep. Tohoku Univ., Ser. 5	Vol. 1, 5-15
1949	Absorption Coefficient of Water Vapour in the Near Infra-red Region, (coauthor G. Onishi)	Sci. Rep. Tohoku Univ., Ser. 5 Geophys.	Vol. 1, 71-75
1949	市街地上空の風の乱れ（第2報） 自由大気の乱れに就いて（第4報） （塩谷正雄共著）	気 象 集 誌	第27巻, 67-72

- | | | | |
|------|---|---|---------------------|
| 1949 | 地面附近の大気の乱れ (第1報)
(塩谷正雄共著) | 気象集誌 | 第27巻,
73-77 |
| 1949 | 市街地上空の風の乱れ (第1報)
自由大気の乱れに就いて (第3報)
(塩谷正雄共著) | 気象集誌 | 第27巻,
111-114 |
| 1949 | Average Vertical Distribution of Water
Vapour in the Atmosphere | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 1,
76-79 |
| 1949 | On the Rate of Evaporation of Small
Water Drops,
(coauthor A. Miura) | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 1,
80-82 |
| 1950 | Atmospheric Turbulence over the Large
City-Turbulence in the Free Atmosphere
(3rd Report), (coauthor M. Shiotani) | Geophys.
Mag. | Vol. 21 |
| 1950 | On Nocturnal Radiation | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 2,
27-43 |
| 1950 | Evaporation by Natural Convection | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 2,
48-50 |
| 1950 | Investigations of Evaporation from Pans | Transaction
American
Geophys.
Union. | Vol. 21,
349-356 |
| 1951 | Opacity at Sendai,
(coauthor A. Miura) | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 3 |
| 1951 | Saturation Vapour Pressure and Size of
Condensation Nucleous,
(coauthor A. Miura) | Sci. Rep.
Tohoku Univ.,
Ser. 5,
Geophys. | Vol. 3 |
| 1951 | Appendix to our paper on "Absorption
Coefficient of Water Vapour in the Far
Infra-Red Region" | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 3,
73-77 |
| 1951 | On the Relation between Transmission
Function of Column and that of Slab for
Infra-Red Absorption Band | Sci. Rep.
Tohoku Univ.,
Ser. 5,
Geophys. | Vol. 3,
130-133 |
| 1952 | On a Radiation Chart | Sci. Rep.
Tohoku
Univ., Ser. 5,
Geophys. | Vol. 4, 9-23 |

- | | | | |
|------|--|--|-----------------|
| 1952 | Effect of Radiative Transfer on the Vertical Distribution of Temperature in the Troposphere | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 4, 64-70 |
| 1952 | Observations of the Rate of Growth of Ice Crystals Artificially Produced in the Atmosphere, (coauthors S. Ogiwara, K. Yoshida, A. Miura, T. Okita and T. Ohtake) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 4, 83-87 |
| 1952 | Influence of Stability on Turbulent Transfer Near the Ground | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 4 88-93 |
| 1952 | Absorption of Solar Radiation by Water Vapor in the Atmosphere, (coauthor G. Onishi) | J. Meteorology | Vol. 9, 415-421 |
| 1953 | A Chart for the Calculation of Radiative Temperature Changes, (coauthor G. Onishi) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 4, 108-115 |
| 1953 | Radiative Equilibrium of the Earth's Atmosphere, I. The Grey Case | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 5, 45-57 |
| 1953 | Electron Microscope Study of Cloud and Fog Nuclei, (coauthor T. Ohtake) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 5, 141-159 |
| 1954 | Measurement of Atmospheric Radiation, (coauthor T. Sasamori) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 6, 19-31 |
| 1954 | Transmissivity of the Infrared Radiation through Smokes, (coauthor T. Saito) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 6, 32-38 |
| 1955 | Radiative Equilibrium of the Earth's Atmosphere, II. The Use of Rosseland's and Chandrasekhar's Means in the Line Absorbing Case | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 6, 127-136 |
| 1955 | Radiative Equilibrium of the Earth's Atmosphere, III. The Exact Solution for a Grey, Finite Atmosphere | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 7, 1-9 |
| 1955 | Electron Microscope Study of Cloud and Fog Nuclei, II. Distinction between Fog and Mist Nuclei, (coauthor T. Ohtake) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 7, 10-16 |

1957	Estimation of Additional Downward Radiation from Aerosols over Large Cities	J. Meteor. Soc. Japan	the 75th Anniversary Vol. 1-4
1957	Numerical Study of Water Vapour Transmission, (coauthor T. Sasamori)	Sci. Rep. Tohoku Univ., Ser. 5, Geophys.	Vol. 8, 36-44
1958	Calculation of the Absorption of the 15μ Carbon-Dioxide Band	Sci. Rep. Tohoku Univ., Ser. 5, Geophys.	Vol. 10, 37-57
1959	Effect of Surface Reflectivity for Long Wave Radiation on Temperature Profiles near the Bare Soil Surface, (coauthor J. Kondo)	Sci. Rep. Tohoku Univ., Ser. 5, Geophys.	Vol. 11, 1-9
1959	Theory of Turbulent Transfer in Non-Neutral Conditions	J. Meteor. Soc. Japan	Vol. 37, 60-70
1960	Numerical Solution of the Equation of Atmospheric Turbulent Diffusion (1), (coauthor A. Shimanuki)	Sci. Rep. Tohoku Univ., Ser. 5, Geophys.	Vol. 12, 24-35
1961	Discussion of the Letter by R. A. Hanel, "Determination of Cloud Altitude from a Satellite", (coauthor D. Q. Wark)	J. Geophys. Research	Vol. 66, 3596
1961	Numerical Method for Estimating the Stratospheric Temperature Distribution from Satellite Measurements in the CO_2 Band	J. Meteorology	Vol. 18, 581-588
1961	Further Studies on the Absorption by the 15-Micron Carbon Dioxide Bands, (coauthor T. Sasamori)	Sci. Rep. Tohoku Univ., Ser. 5, Geophys.	Vol. 13, 1-19
1962	Direct Absorption of Solar Radiation by Atmospheric Water Vapor, Carbon Dioxide and Molecular Oxygen	J. Atmos. Sci.	Vol. 19, 182-188
1962	Methods of Estimating Infrared Flux and Surface Temperature from Meteorological Satellites, (coauthors D. Q. Wark and J. H. Lienesch)	J. Atmos. Sci.	Vol. 19, 369-384
1962	Infrared Flux and Surface Temperature Determinations from TIROS Radiometer Measurements, (coauthors D. Q. Wark and J. Lienesch)	Meteorological Satellite Laboratory, Report No. 10	

- | | | | |
|------|--|---|----------------------|
| 1963 | Calculations of the Earth's Spectral Radiance for Large Zenith Angles,
(coauthors D. Q. Wark and J. Alishouse) | Meteorological Satellite Laboratory,
Report No. 21 | |
| 1964 | Variation of the Infrared Spectral Radiance near the Limb of the Earth,
(coauthors D. Q. Wark and J. Alishouse) | Applied Optics | Vol. 3,
221-227 |
| 1964 | The Determination of Lateral Diffusivity in Diabatic Conditions near the Ground from Diffusion Experiments,
(coauthor A. Shimanuki) | J. Atmos. Sci. | Vol. 21,
187-196 |
| 1964 | Profiles of Wind and Temperature in the Lowest 250 Meters in Tokyo,
(coauthor A. Shimanuki) | Sci. Rep. Tohoku Univ., Ser. 5, Geophys. | Vol. 15,
111-114 |
| 1964 | Evaporation from Lake Towada,
(coauthor J. Kondo) | J. Meteor. Soc. Japan | Vol. 42,
85-96 |
| 1966 | Turbulent Transfer in Diabatic Conditions,
(coauthor A. Shimanuki) | J. Meteor. Soc. Japan | Vol. 44,
301-307 |
| 1966 | Radiative Transfer in Water Clouds in the 10-Micron Window Region,
(coauthors M. Tanaka and K. Kamitani) | J. Atmos. Sci. | Vol. 23,
305-313 |
| 1966 | Estimation of Water Vapor Distribution in the Atmosphere from Satellite Radiation Measurements,
(coauthor M. Tanaka) | Proc. XVII International Astronautical Congress | 235-267 |
| 1967 | Transmission due to overlapping Lines,
(coauthor M. Aida) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 7,
123-141 |
| 1967 | Indirect Measurements of Atmospheric Temperature Profiles from Satellites: V. Atmospheric soundings from infrared spectrometer measurements at the ground,
(coauthors M. Wolk and F. Van Cleef) | Mon. Weather Review | Vol. 95,
463-467 |
| 1968 | Evaluation of the Transmission of the Q Branch of the CO ₂ Band,
(coauthor M. Aida) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 8,
1307-1317 |
| 1968 | Hemispherical Distribution of Turbidity Coefficient as Estimated from Direct Solar Radiation Measurements,
(coauthors M. Tanaka and K. Arai) | J. Meteor. Soc. Japan | Vol. 46,
278-300 |
| 1968 | Effect of Thermal Stratification on the Ekman Layer,
(coauthors N. Yasuda and A. Shimanuki) | J. Meteor. Soc. Japan | Vol. 46,
442-456 |
| 1968 | Evaporation from Lake Nojiri,
(coauthor J. Kondo) | J. Meteor. Soc. Japan | Vol. 46,
166-177 |

- | | | | |
|------|--|---|--------------------|
| 1969 | Estimation of Rotational Line Widths of Carbon Dioxide Bands,
(coauthors M. Tanaka and T. Aoki) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 9,
371-382 |
| 1969 | Determination Aerosol Size Distribution from Spectral Attenuation Measurements,
(coauthor M. Tanaka) | Applied Optics | Vol. 8,
447-453 |
| 1970 | Transmission in a Non-Homogeneous Atmosphere with an Absorbing Gas of Constant Mixing Ratio,
(coauthor M. Aida) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 10 |
| 1970 | Diffusion of Folling Particles in Diabatic Atmosphere,
(coauthors A. Shimanuki and S. Nishinomita) | J. Meteor. Soc. Japan | Vol. 48 |
| 1970 | Radiative Transfer in Water Clouds in the Infrared Region,
(coauthors M. Tanaka and S. Asano) | J. Atmos. Sci. | Vol. 27 |
| 1971 | Radiative Heat Transfer in Water Clouds by Infrared Radiation,
(coauthors M. Tanaka and S. Asano) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 11 |
| 1971 | Table of Scattering Function of Infrared Radiation for Water Clouds,
(coauthors M. Tanaka and S. Asano) | NOAA Technical Report
NESS 57 | |
| 1971 | Secular Variation of Atmospheric Turbidity over Japan,
(coauthors M. Tanaka and K. Arai) | J. Meteor. Soc. Japan | Vol. 49 |
| 1971 | Rotational Line Width of Methane,
(coauthor M. Hirano) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 11 |
| 1972 | Evaporation from Deep Lakes in Japan,
(coauthors Ba Than Chein, N. Yasuda and J. Kondo) | J. Meteor. Soc. Japan | Vol. 50 |
| 1972 | Light Scattering by a Spheroidal Particle,
(coauthor S. Asano) | Proc. International Radiation Symposium, Sendai, May 26-June 2 | |
| 1972 | Line Broadening Theory of Asymmetric Top Molecule,
(coauthor T. Aoki) | J. Quant. Spectrosc. Radiat. Transfer | Vol. 12 |
| 1972 | Radiative Transfer and Optical Properties of Turbid Atmospheres,
(coauthor M. Tanaka) | Proc. International Radiation Symposium, Sendai, May 26 -June 2 | |

- | | | | |
|------|---|---|-----------------------|
| 1972 | Improved Curtis- Godson Approximation
in a Non-Homogeneous Atmosphere,
(coauthors M. Aida and S. Yamamoto) | J. Atmos.
Sci. | Vol. 29,
1150-1155 |
| 1973 | Increase of Global Albedo due to Air
Pollution,
(coauthor M. Tanaka) | to be published
in J. Atmos.
Sci. | Vol. 29 |
| 1973 | Tables of Matrix Elements of Dipole and
Quadrupole Moment in Asymmetric-Top
Molecule,
(coauthor T. Aoki) | to be publis-
hed in
Technical
Report 63 | |

II 著 書

- | | | |
|------|---|---|
| 1954 | 大気輻射学 | 岩 波 書 店 |
| 1956 | 気象輻射学 | 地 入 書 館 |
| 1958 | 改訂 気象学概論
新版 | 朝 倉 書 店 |
| 1966 | Solar Radiation,
(Coauthors D. Becker, M.Y. Ben-Sira,
S. Fritz, F. Möller and W. Schüepp) | Elsevier
Publishing
Company,
Amsterdam |

